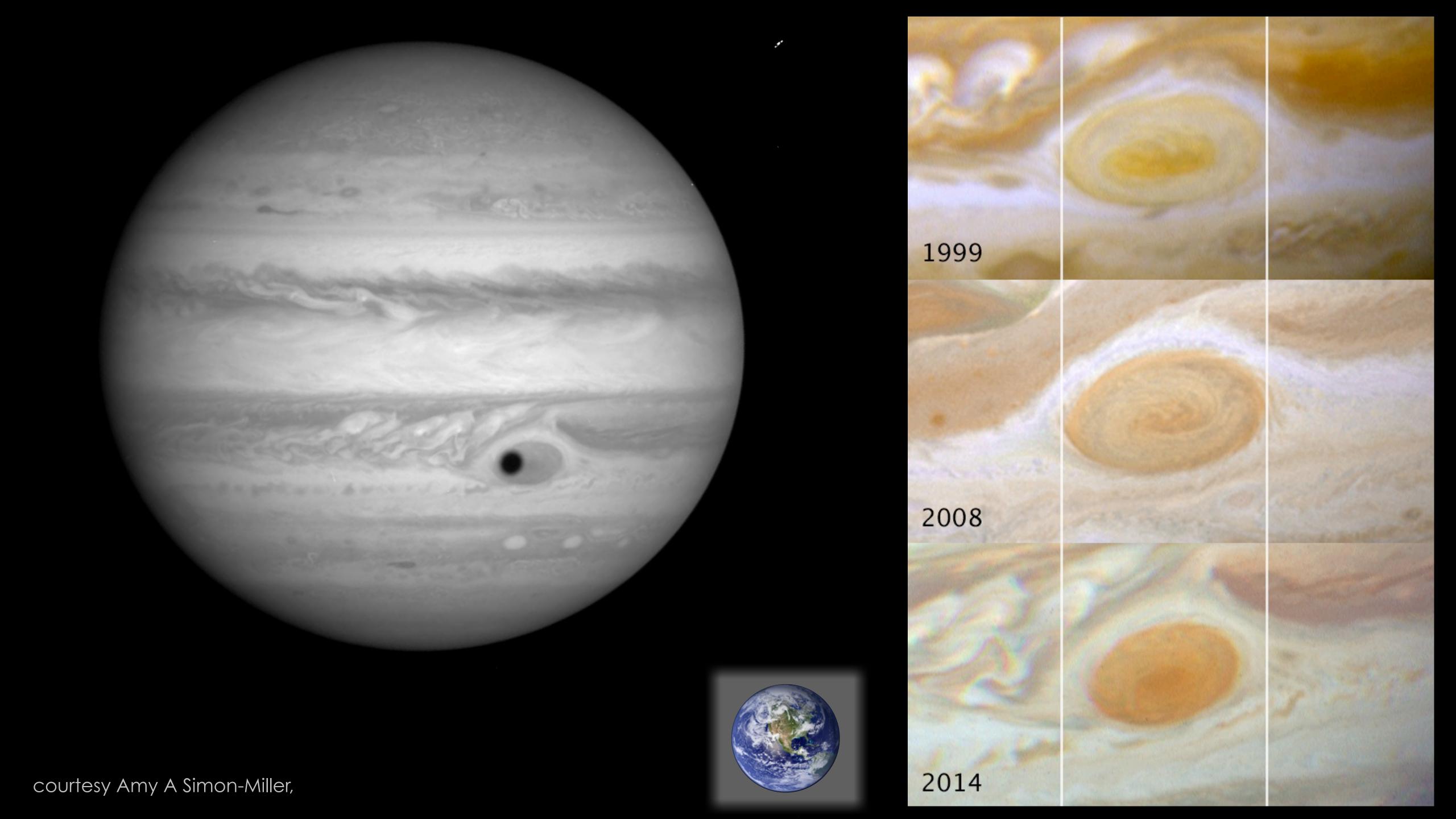


Space Telescope Users Committee

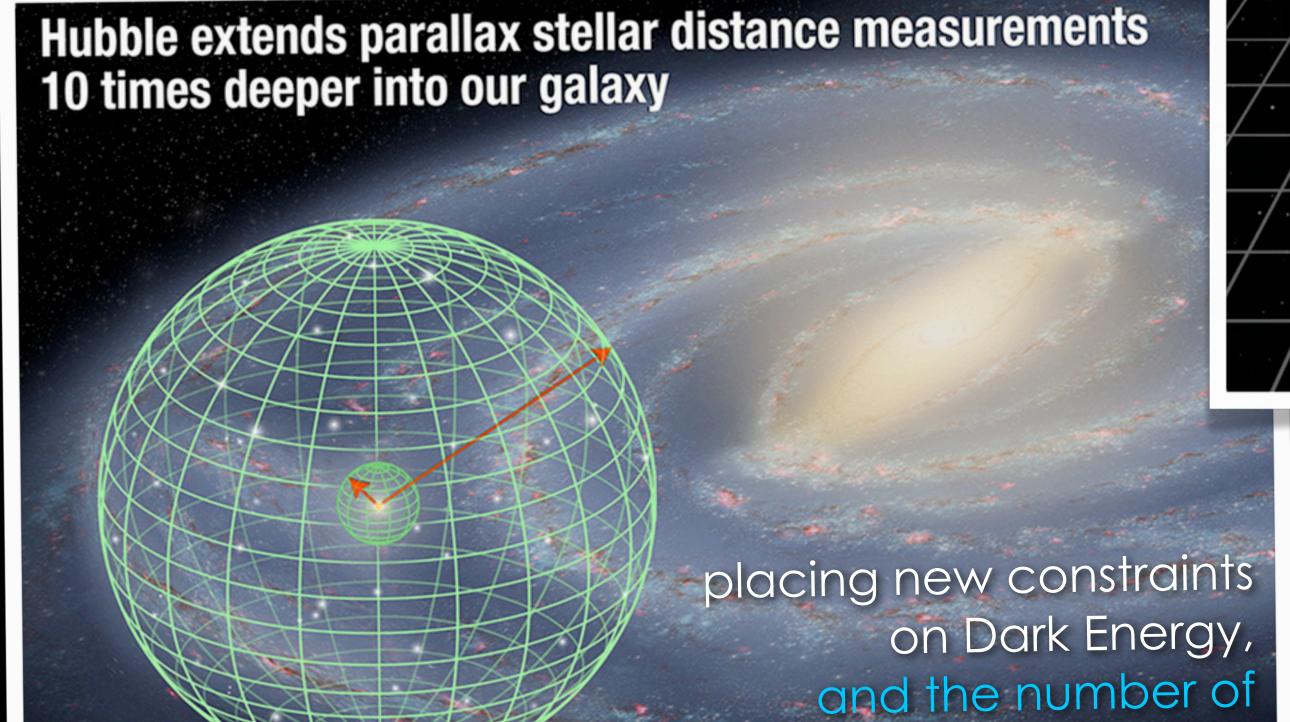
8th May 2014

Matt Mountain

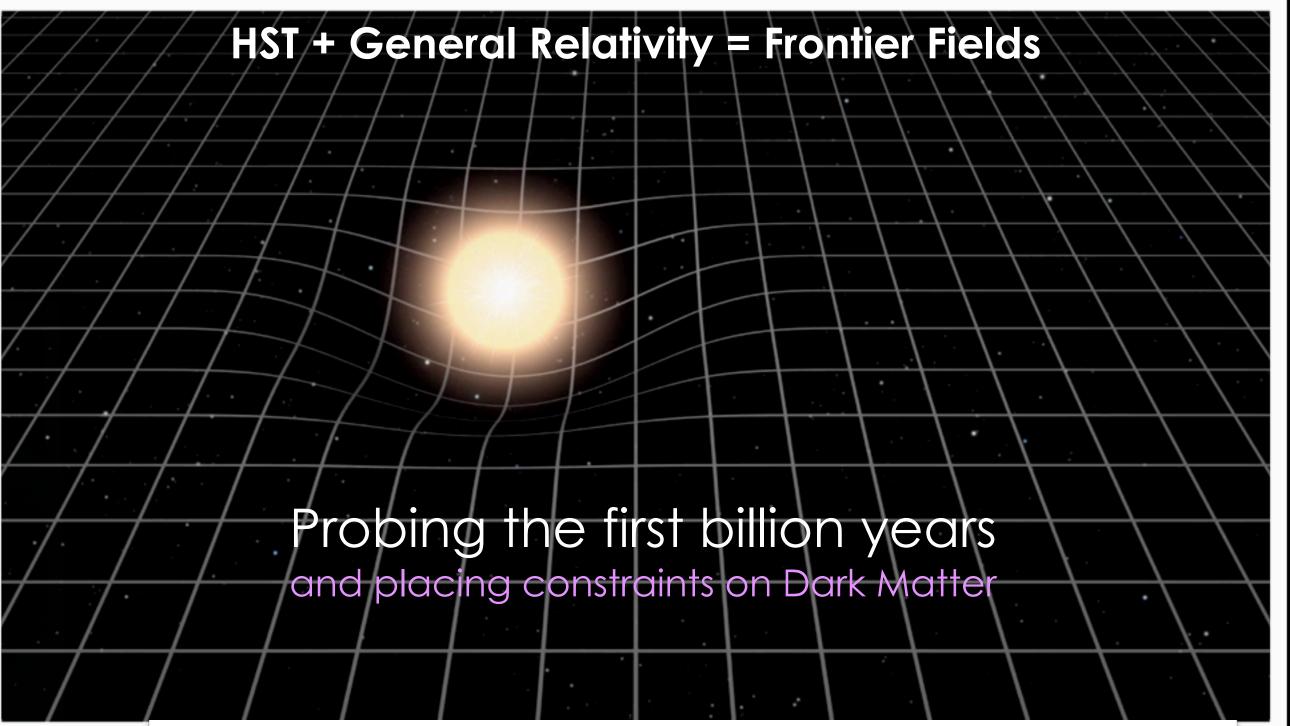


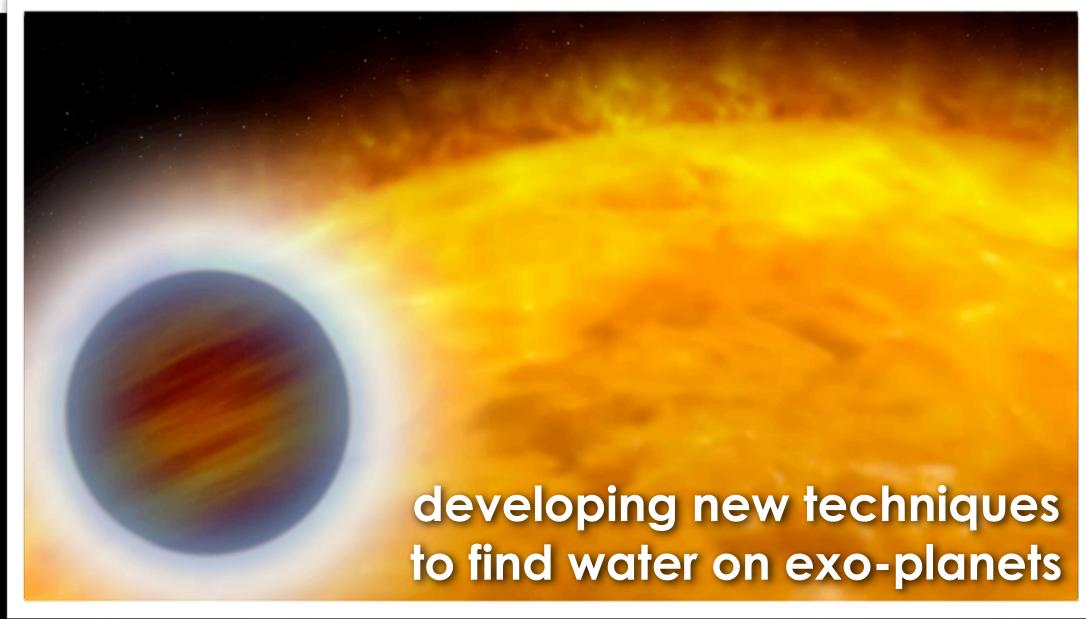


HST continuing to innovate



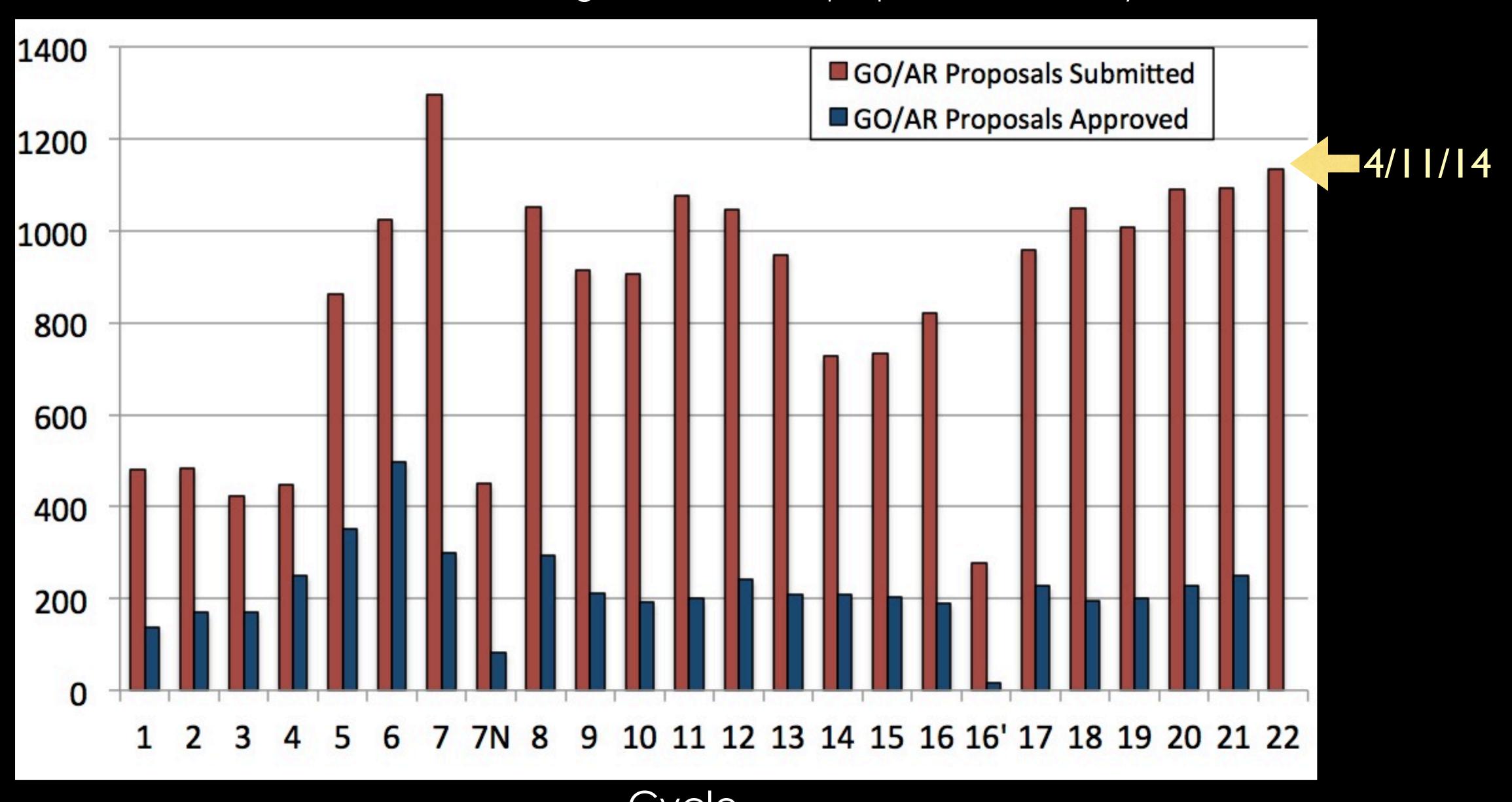
neutrino species



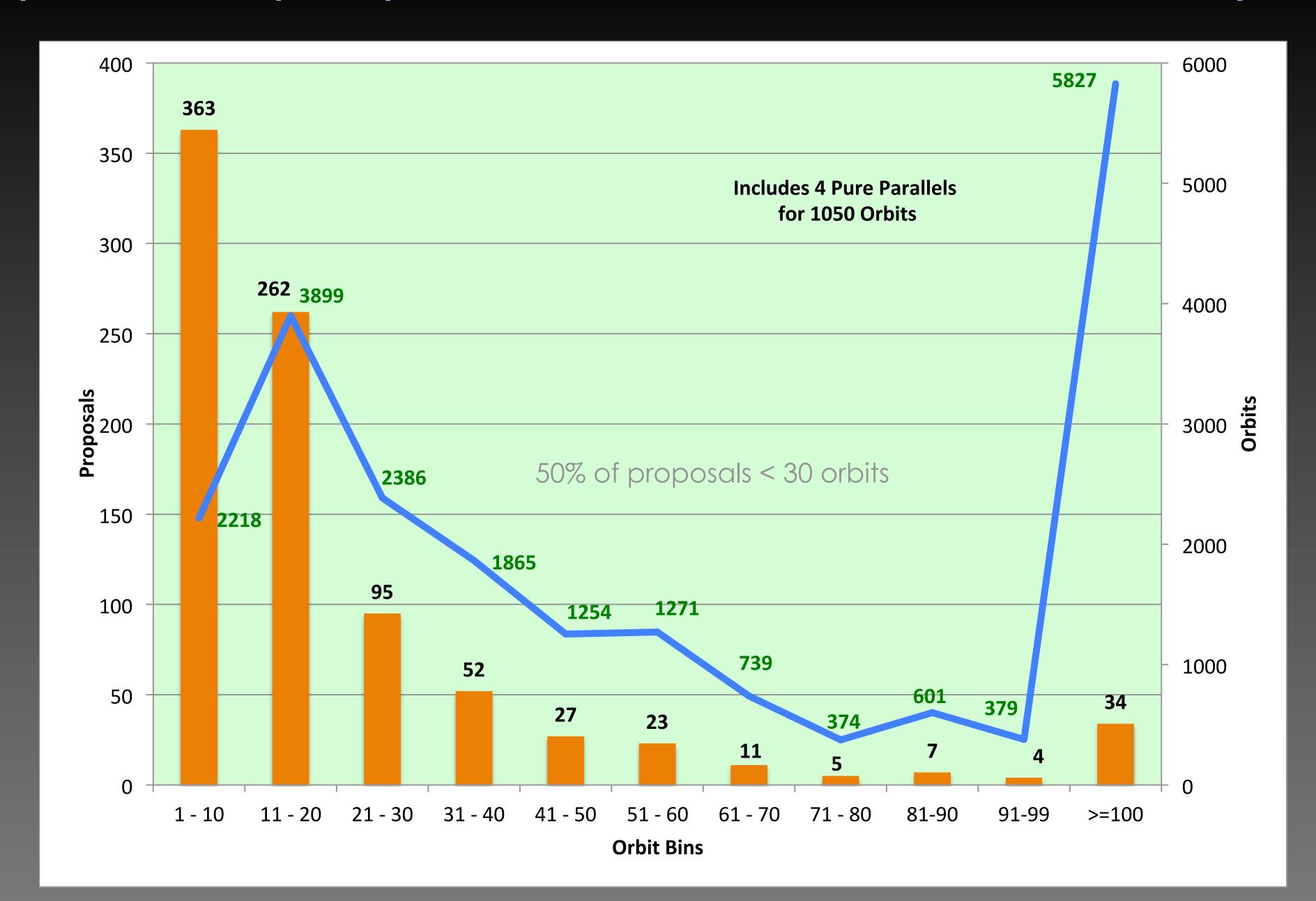


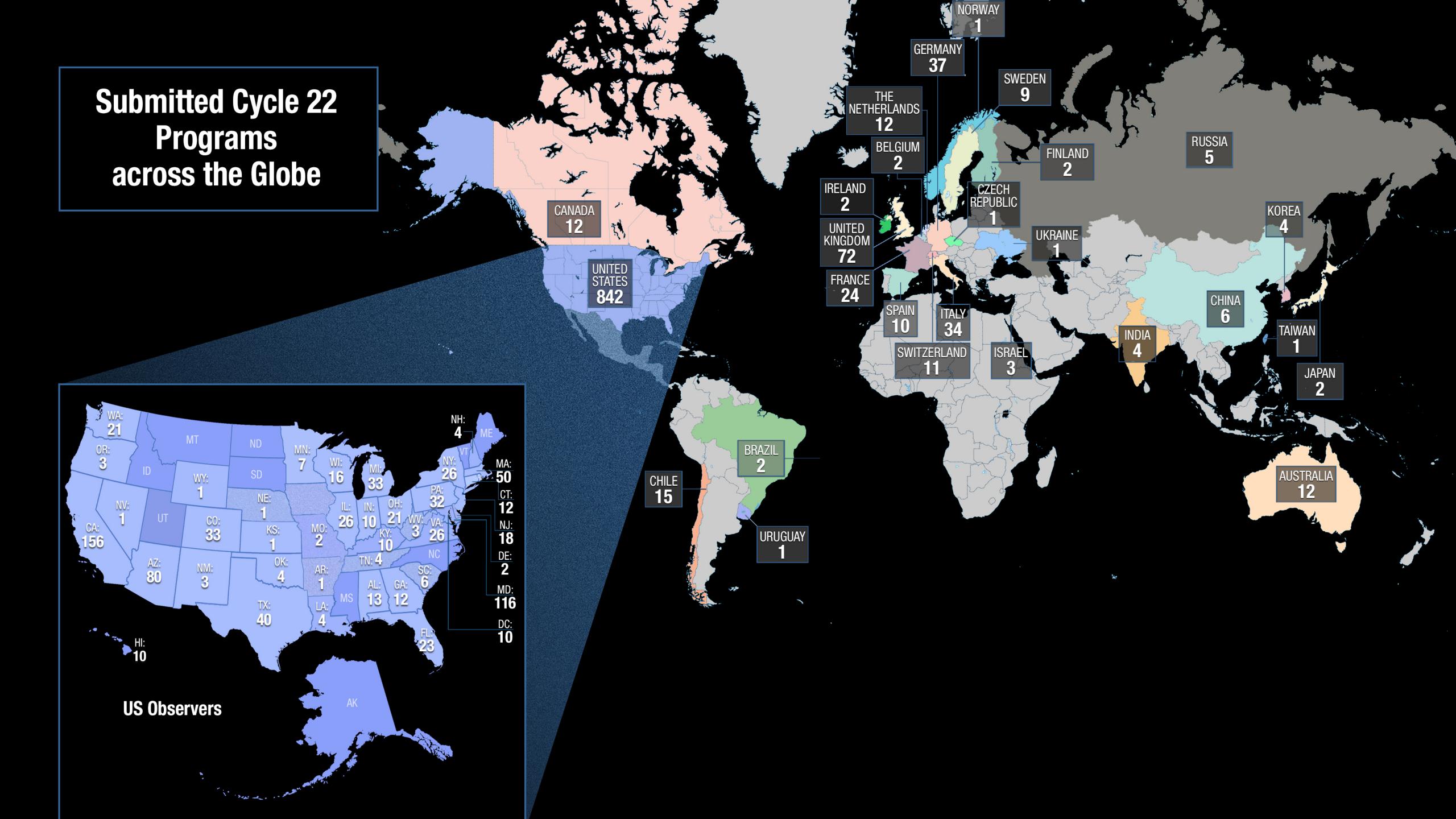
For Cycle 22,

Hubble received the second highest number of proposals in its history 1135



Requested proposal size distribution for Cycle 22





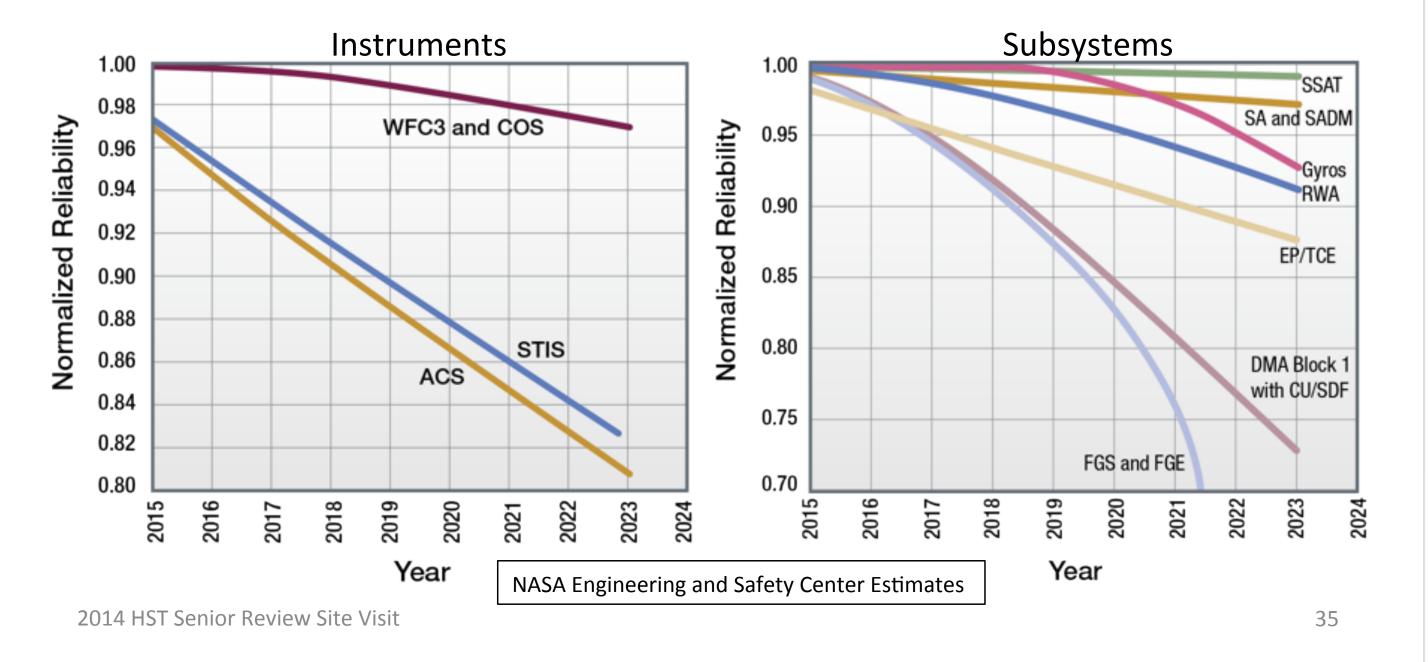
Hubble 2020 assessment

2014 NASA Senior Review Hubble Space Telescope

Reliability of Systems

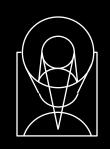


- NESC reliability estimates for Hubble's instruments and primary subsystems support a 2020 vision for the observatory.
- The impending failure of Gyro 5 does not substantively change the overall gyro lifetime assessment.

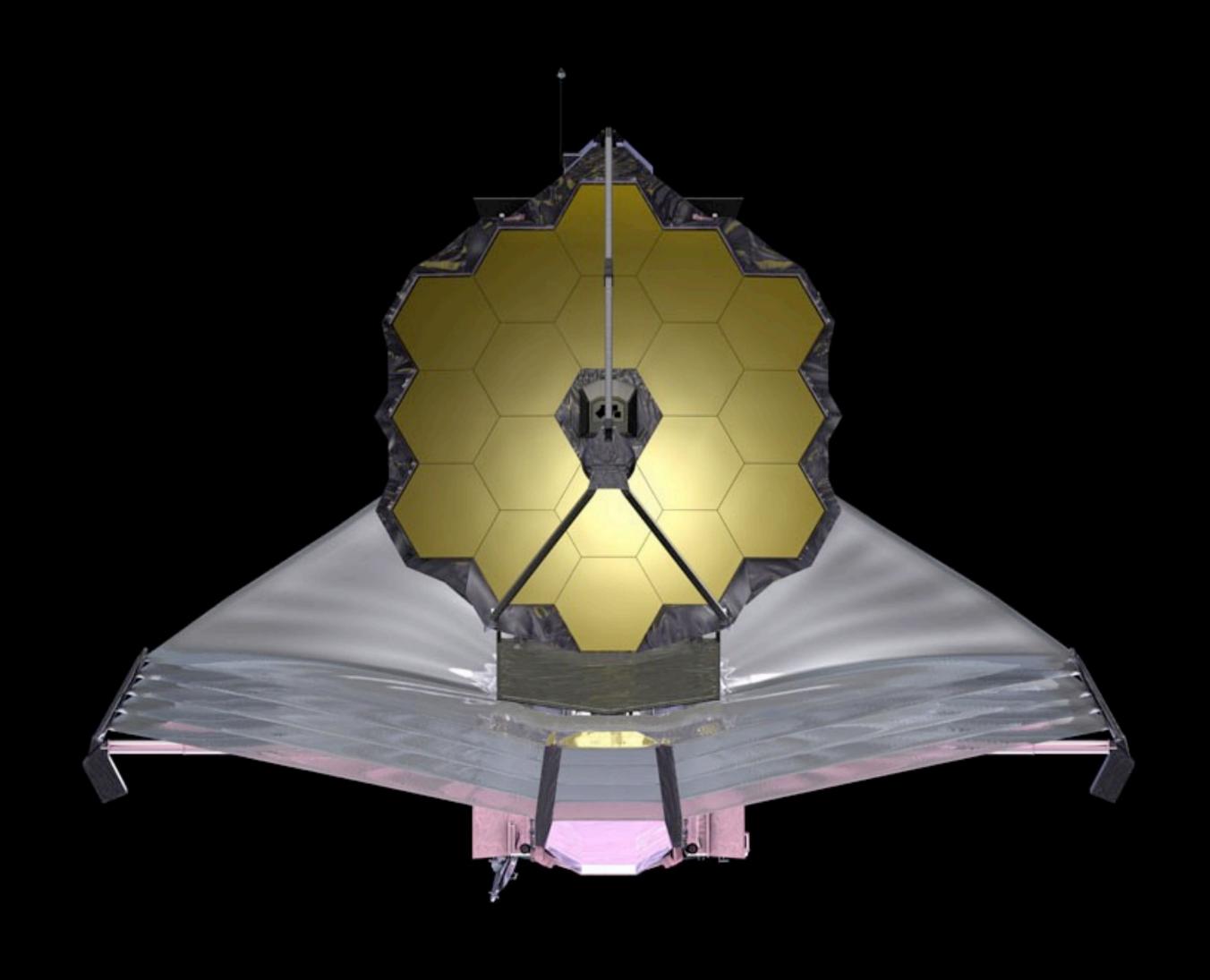


NASA has:

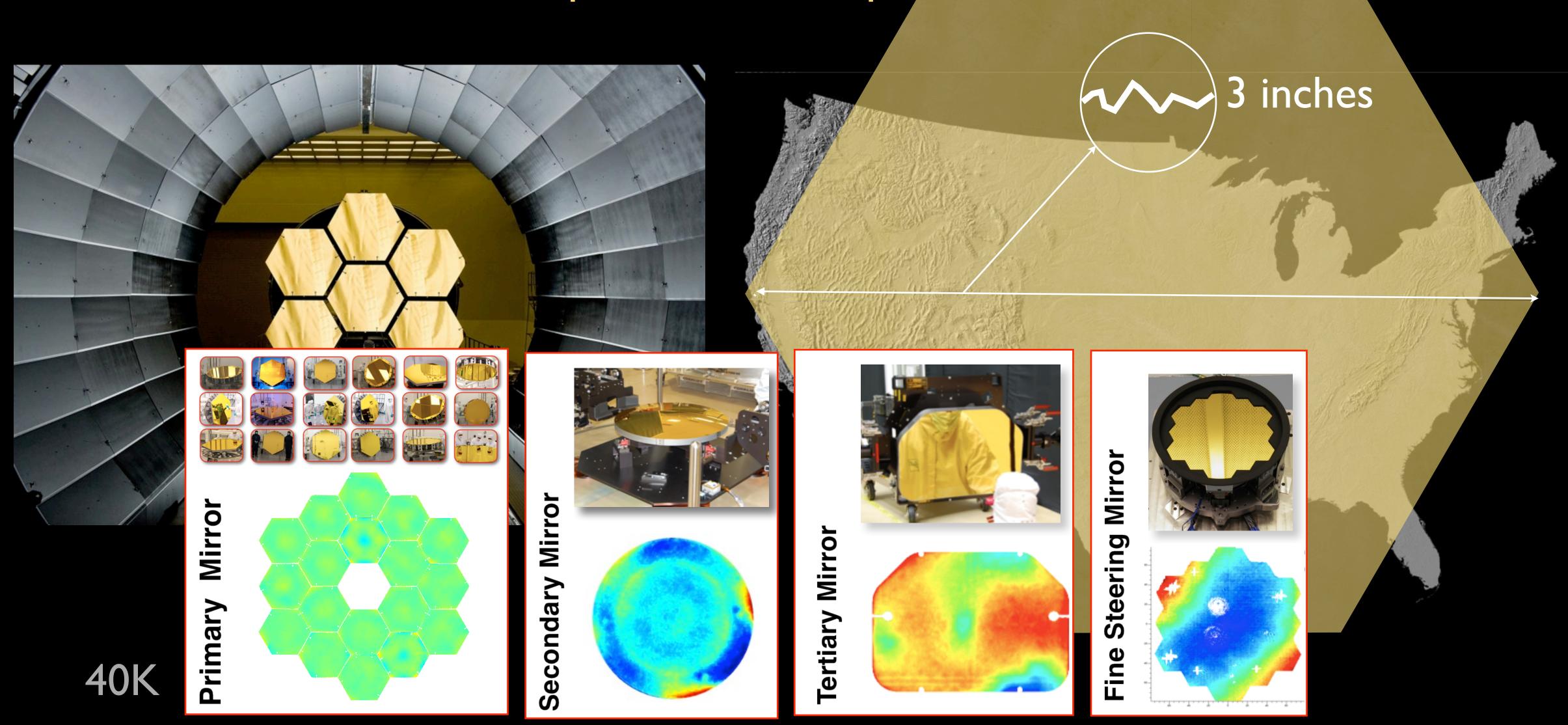
- 1) Commissioned the NASA Engineering and Safety Center (NESC) to undertake a detailed lifetime analysis of HST, which shows HST can remain fully operational and scientifically competitive to 2020
- 2) Charged the NASA Astrophysics Cosmic Origins Program Assessment Group (COPAG) to carry out a study of the scientific advantages and synergies if a minimum one-year overlap between HST and JWST can be achieved
- 3) Separated HST from the usual Senior Review process, giving HST its own, non-competitive senior review to assess the continued cost-effectiveness of the mission



JWST @ STSCI



Substantial technical progress all optics completed



4 instruments for wide range of science

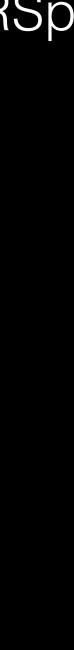
all delivered to Goddard Space Flight Center

NIRCam





NIRSpec



S ○ CE NIRSpec

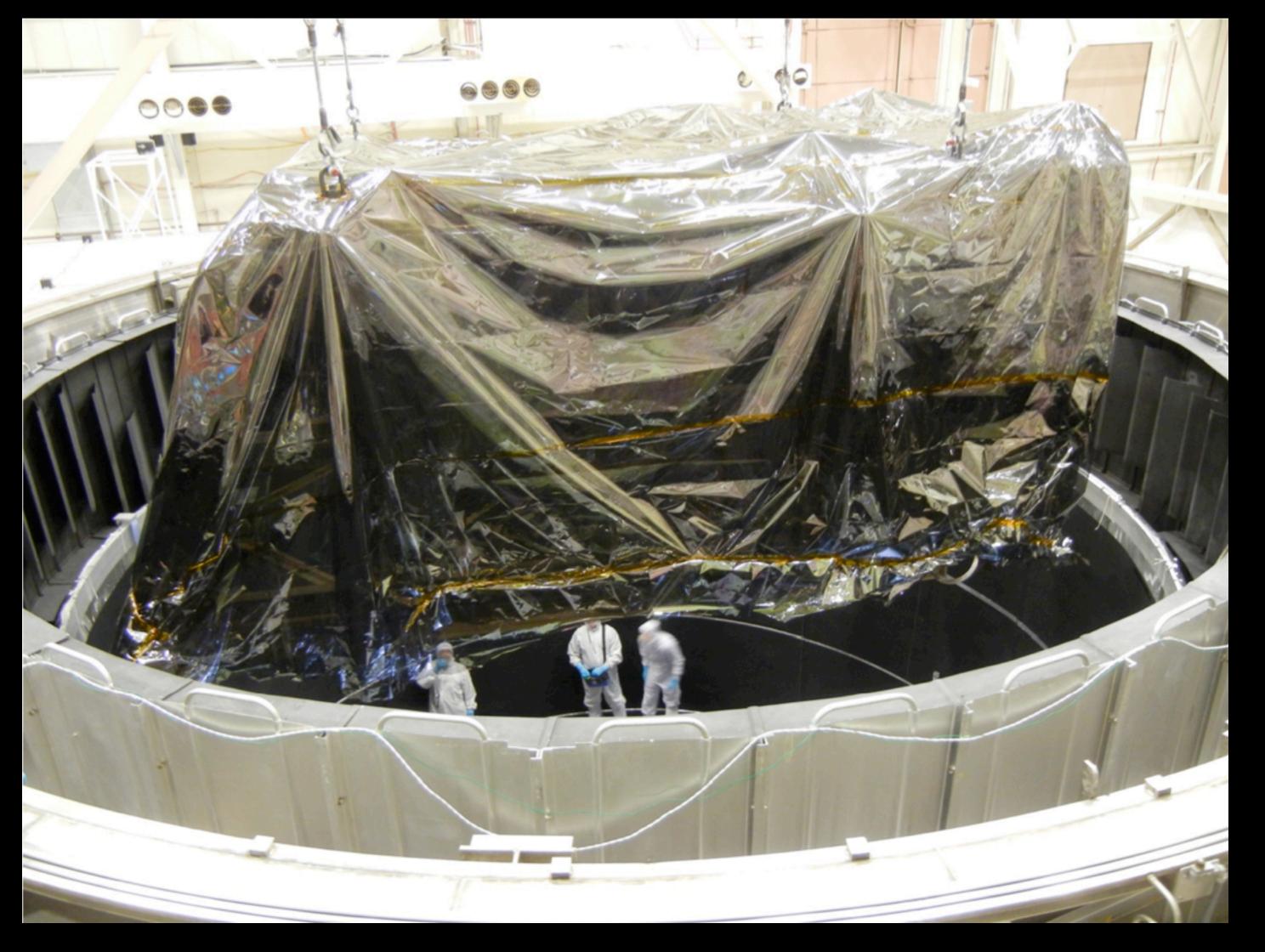
+VI ASTRIUM)

ASTRIUM NIRSPEC



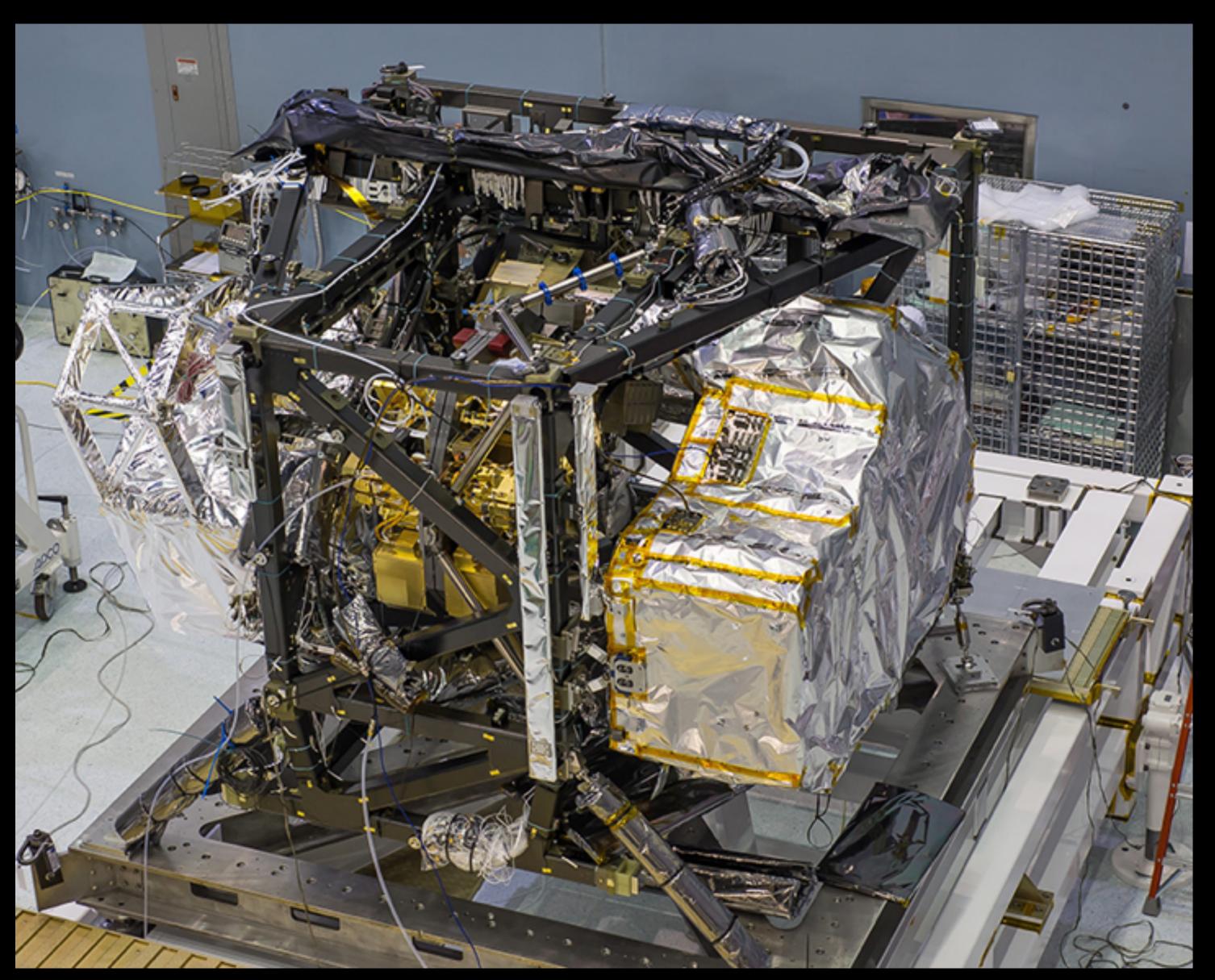
NIRISS

Completed first cryogenic tests of the Instrument Science Interface Module (ISIM), two instruments

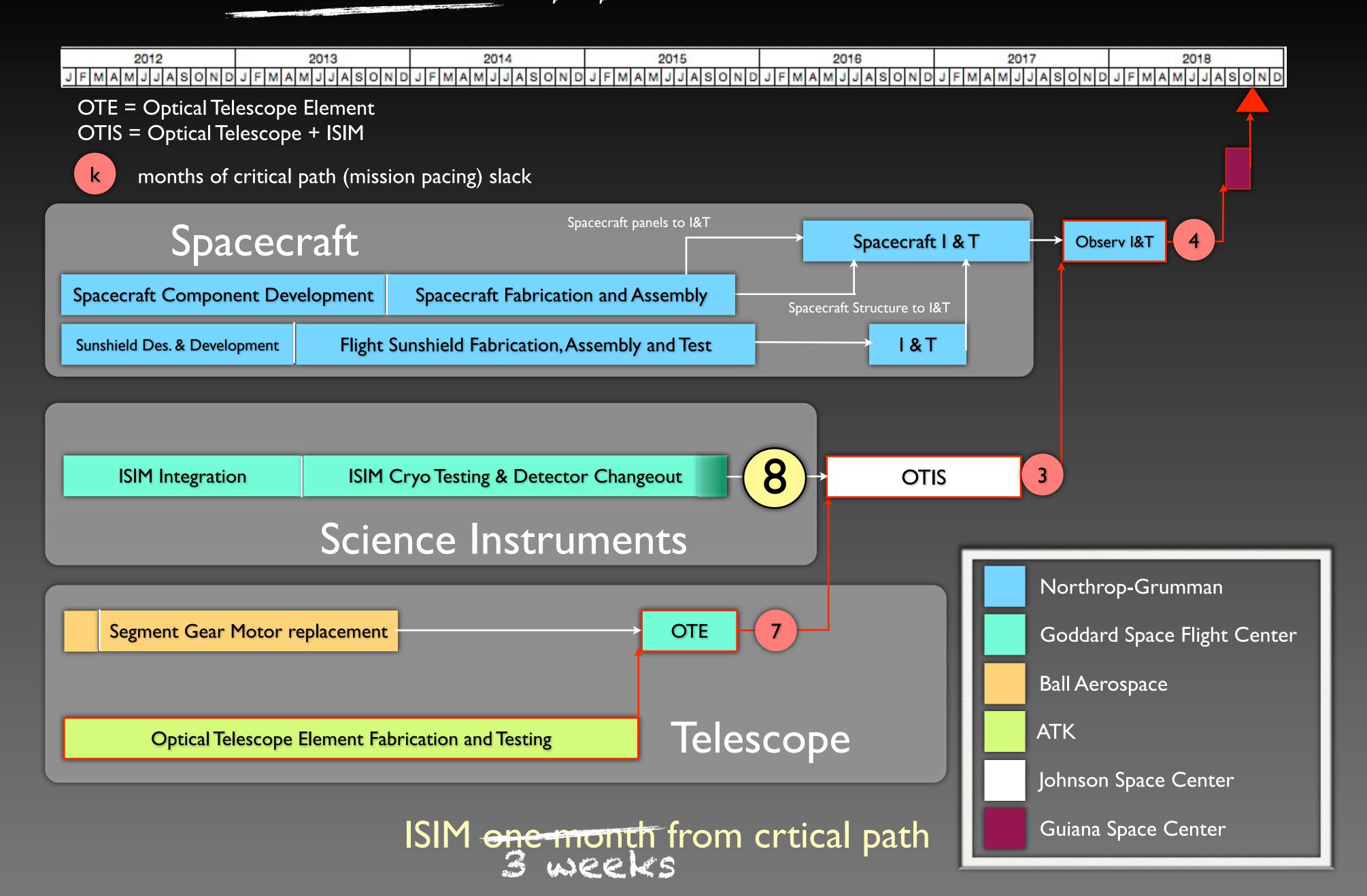


and of STScl's instrument control software

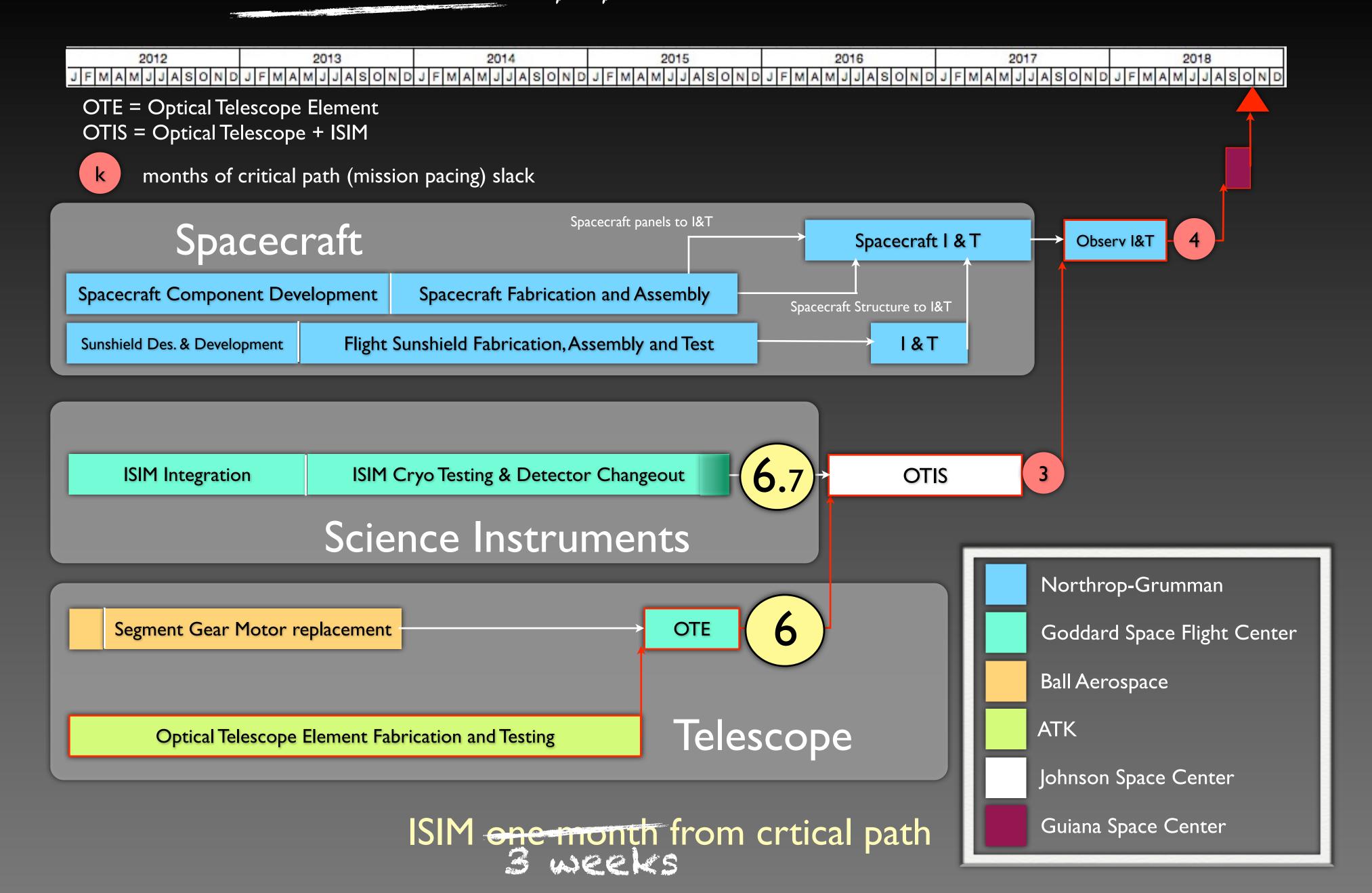
Completed integration of all four instruments in ISIM. first test of all STScI instrument software



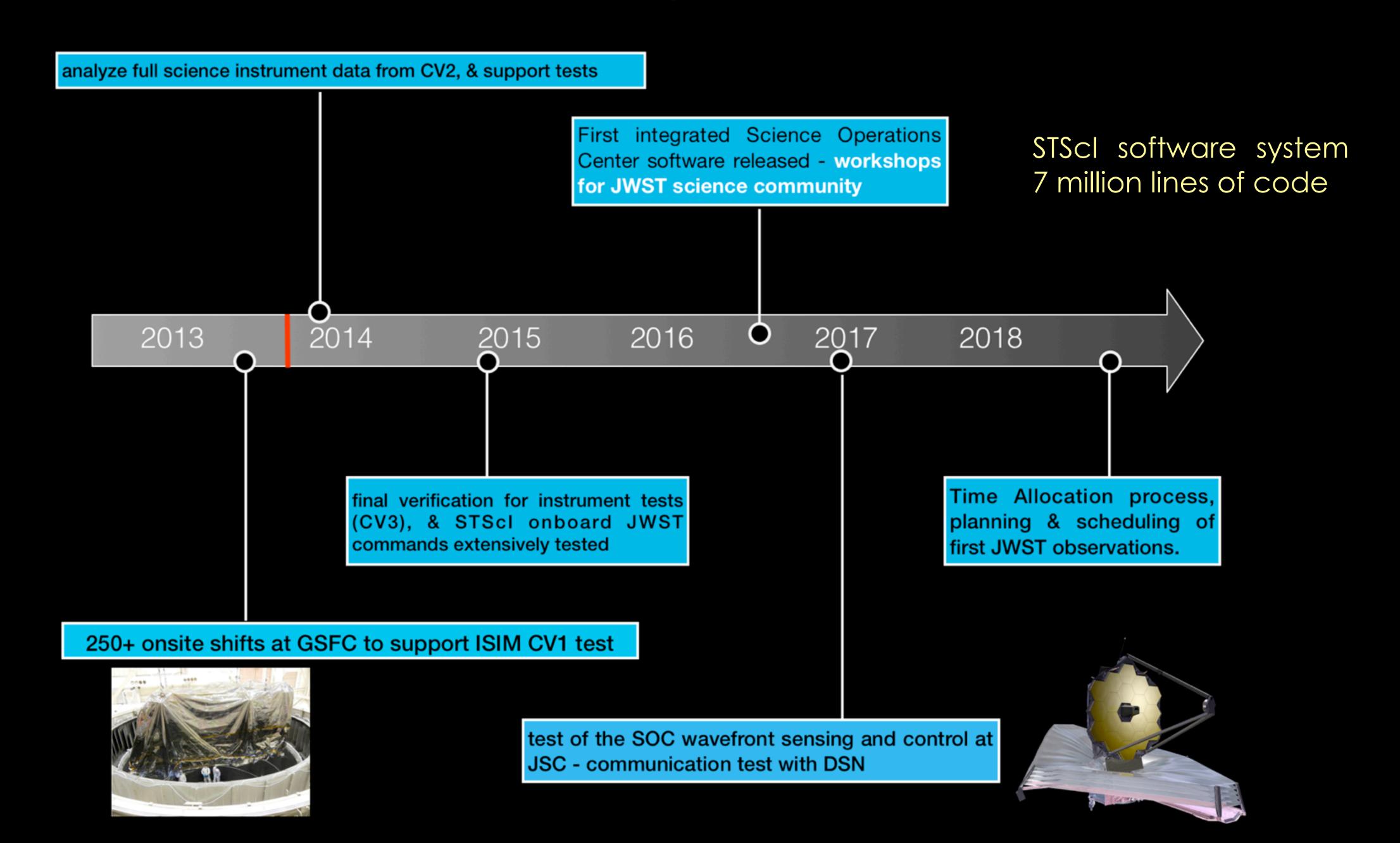
JWST schedule - 13 months of funded schedule reserve available



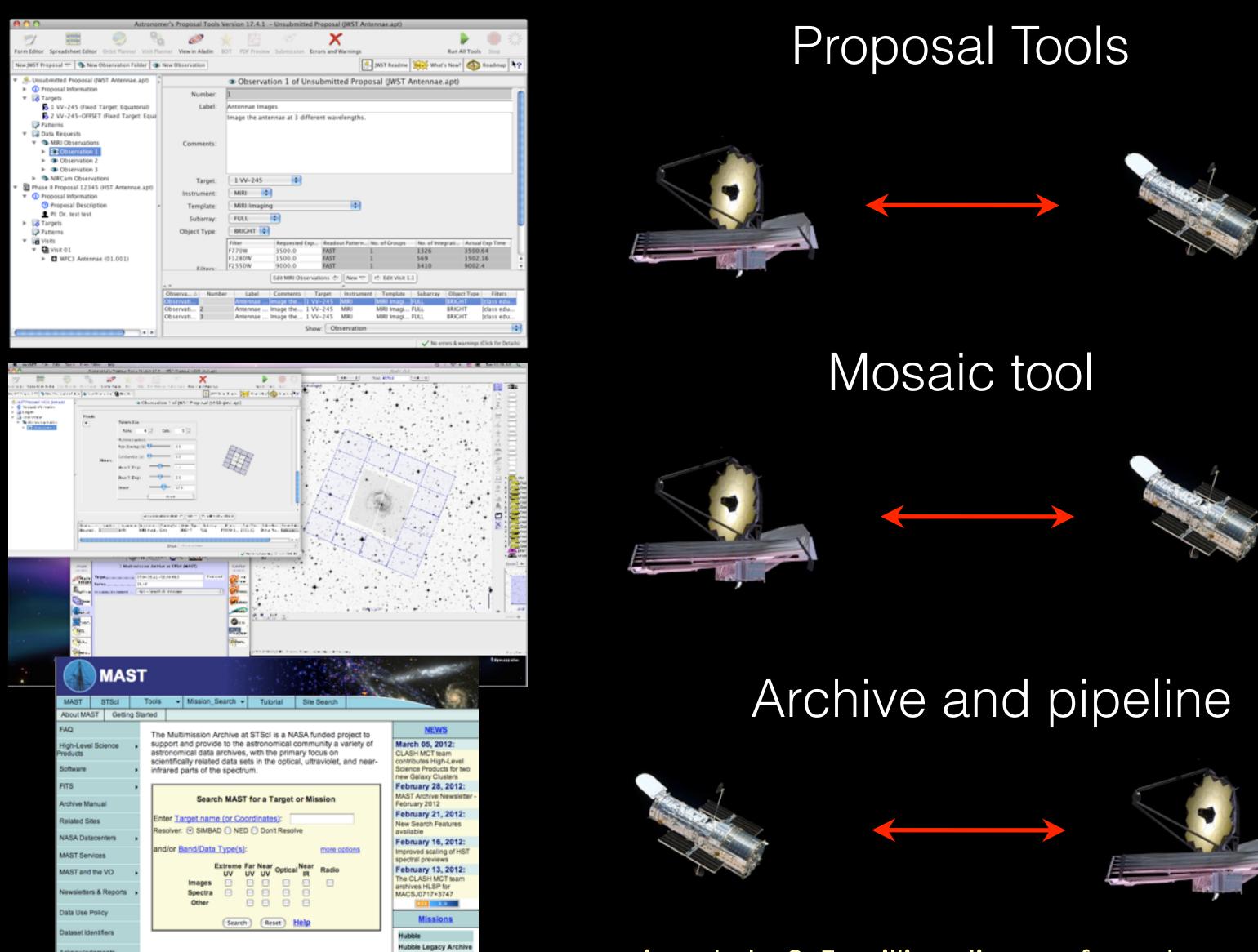
JWST schedule - 13 months of funded schedule reserve available



STScI JWST Major Events to launch



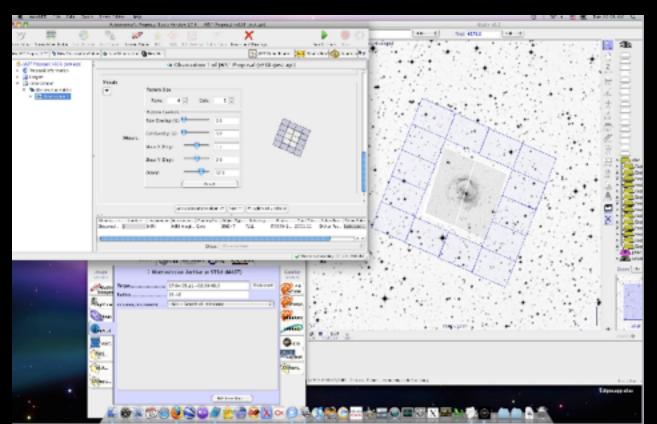
HST-JWST Synergies

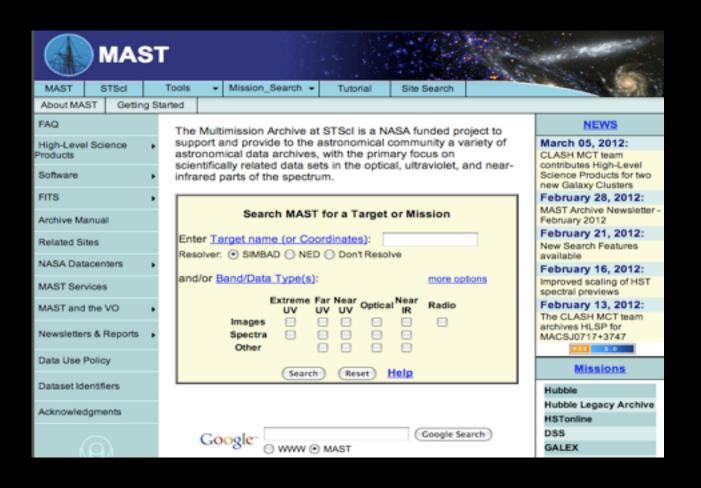


Google ⊖ www ⊕ mast

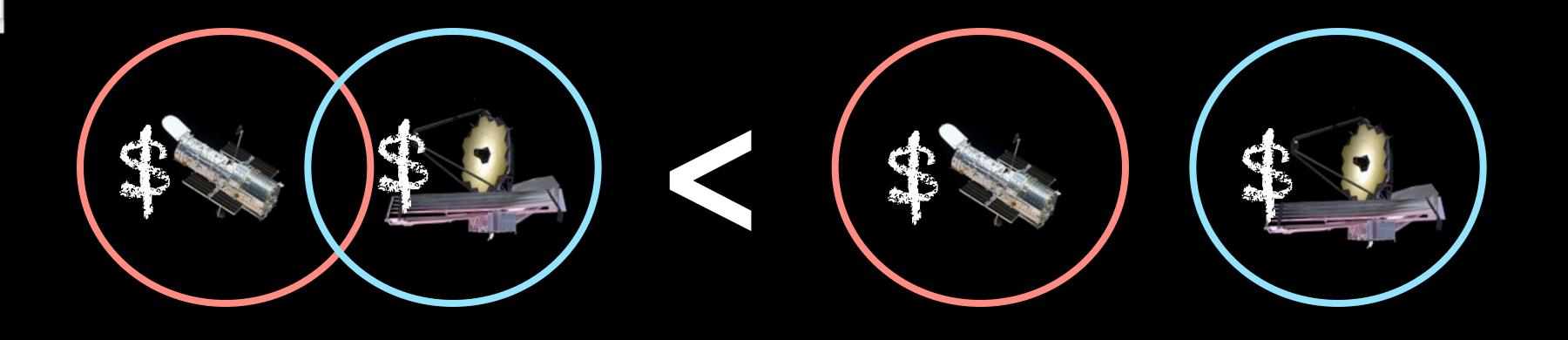
approximately 3.5 million lines of code can be reused

Astronomer's Proposal Tools Version 17.4.1 - Unsubmitted Proposal (WST Antennae apt) Frem Editor Spreadshee Editor Orbit Plumer Visin Plumer Visin





HST-JWST Synergies



As a result of synergies with HST, JWST science operations are seeing between 10% and 15% cost saving

Also substantailly reduces risk for JWST

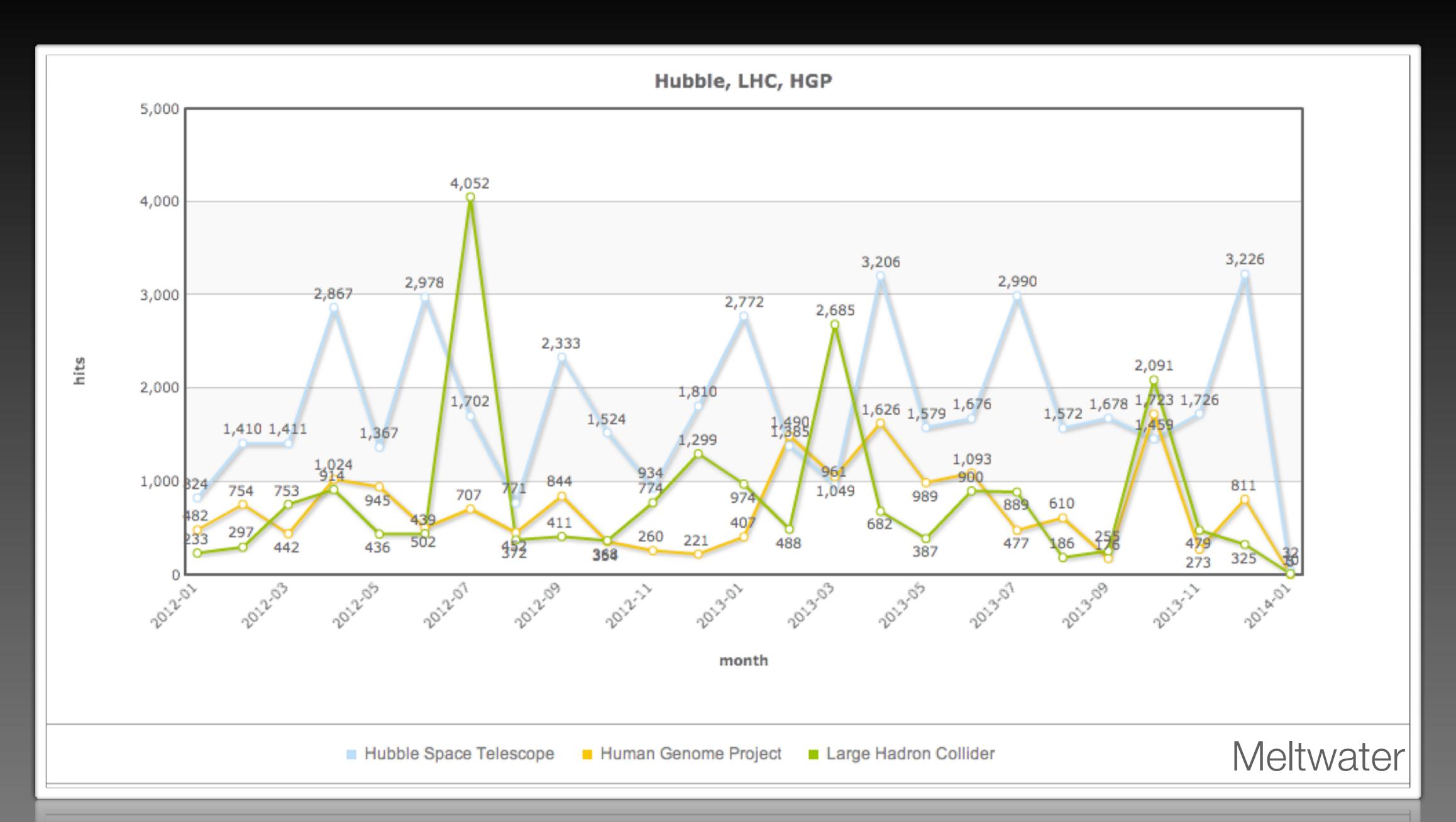
approximately 3.5 million lines of code can be reused

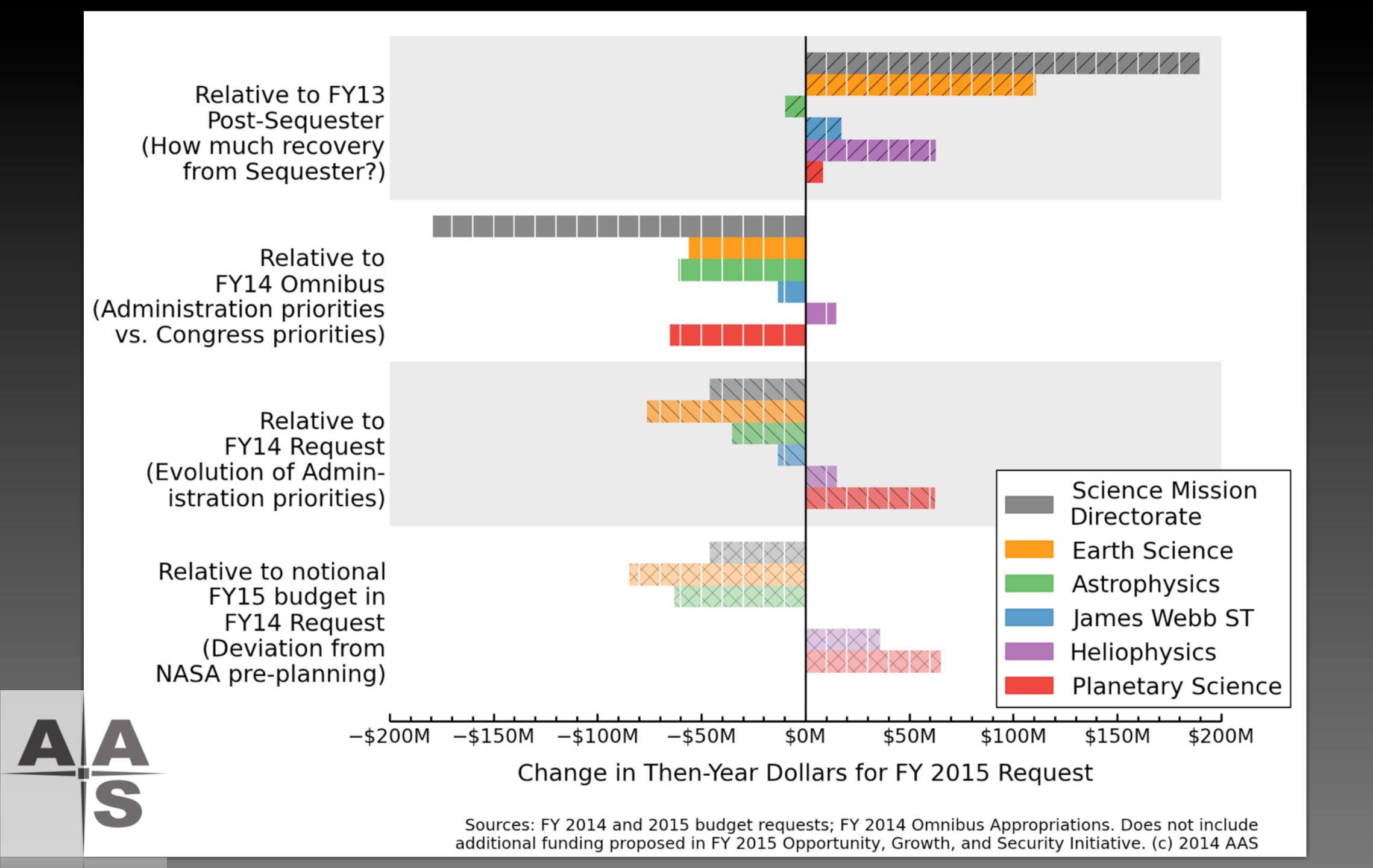
	FY15 PBR	versus FY14 enacted
NASA	17,460.6	-185.9M
SMD	4,972.0	-179.2M*
Astrophysics	607.3	- 60.7M*
JVVST	645.4	- 12.8M*
HST	75.3	- 23M*



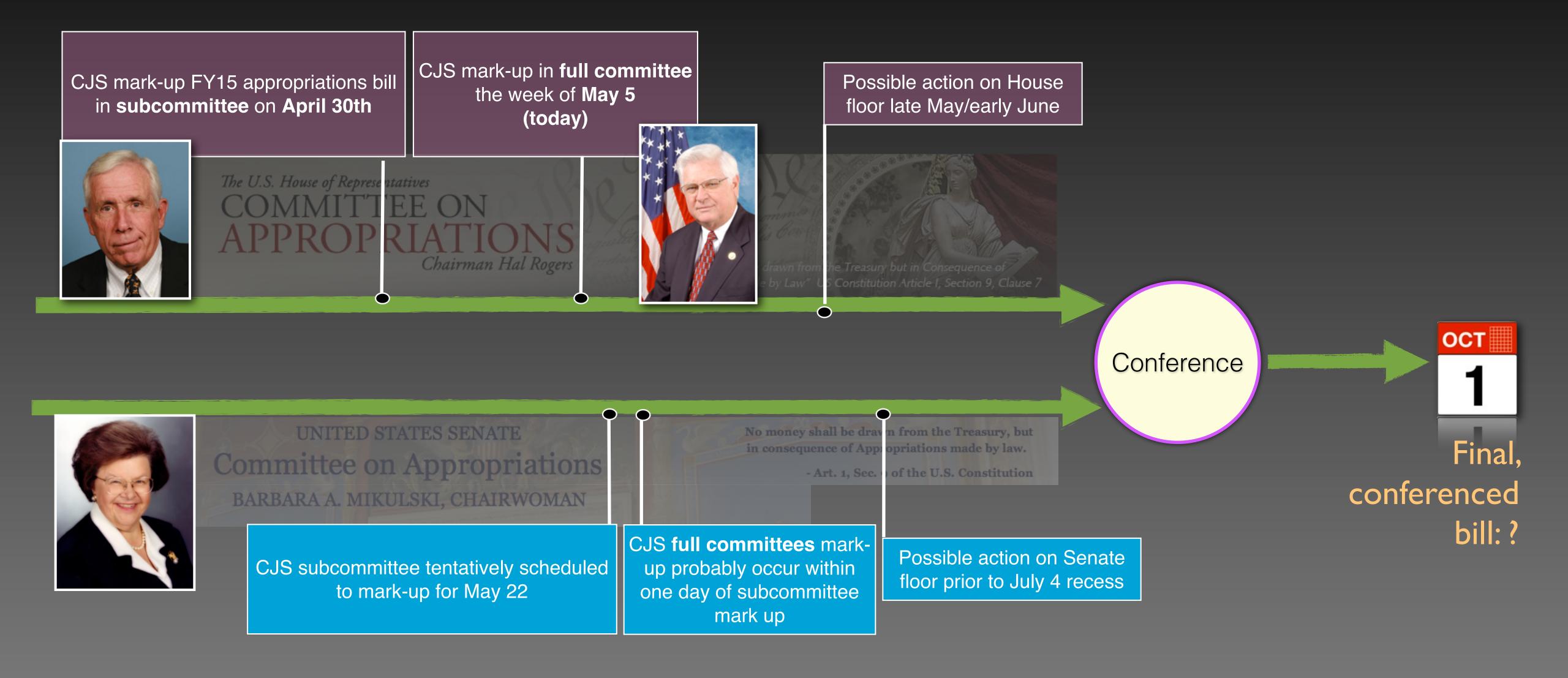
^{*} EPO still not included

Public interest in HST





Possible Funding HAC and SJC, CJS subcommittee appropriations bills for FY 2015



AFTA = Astrophysics Focused Telescope Asset



WFIRST / AFTA

WFIRST/AFTA Key Features

- ★ Hubble's power
- ★ Hubble's resolution and image clarity
- ★ 100x larger field of view than Hubble
- **★ 2.4 meter telescope donated from NRO**
- ★ Coronagraph "proof of concept" for "Life Finding" telescope



